DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed 02/21/2008 have been fully considered but they are not persuasive. Claims 1, 4, 7-10, 21, 24-30, 40, 43-51, 55, 59 and 61 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4, 10, 21, 24-25, 30, 40, 43-44, 51, 55, 59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (Pub. No: 20010018346) in view of Sambhwani et al. (Pub. No: 20070217486) and further in view of Bayley et al. (U.S. 6944143).

Regarding claim 1, Okajima et al. disclose a method for receiving at least one desired communication signal in a wireless communication system, the method comprising:

receiving a plurality of communication signals (fig. 3 and fig. 8, [0060], [0062] to [0068]);

selecting communication signals of the plurality of communication signals based on a received power of each communication signal, the selected communication signals having a received power exceeding a threshold ([0064] to [0074]. Okajima et al. disclose *the control unit 47 selects a record including a received-signal strength that is higher than the received-signal-*

strength threshold, for example, a received-signal strength 25, from the adjacent-base-station received-signal-strength management table, and sets an adjacent base station that use a radio channel specified by radio-channel information of an adjacent base station included in the selected record, to a child base station of the mobile station 30. For instance, the control unit 47 selects the radio channels CH2, CH5 and CH7 from the adjacent-base-station received-signal-strength management table shown in FIG. 20, and sets the base stations 15, 20 and 24 that respectively use the radio channels CH2, CH5 and CH7 to child base stations of the mobile station 30), and including the at least desired communication signal and a plurality of undesired communication signals originating from a plurality of other cell, wherein the plurality of undesired communication signals originals from the plurality of other cells each include a cell address number ([0064] to [0074]);

selecting at least one particular undesired signal of the plurality of undesired signals for processing from at least one highest ranked other cell ([0064] to [0074]);

producing a channel estimate for each selected communication signal based on the cell of that selected undesired communication ([0062] to [0068]); and

jointly detecting data of the selected communication signals (fig. 3 and fig. 8, [0058], [0068] and [0096]).

However, Okajima et al. do not disclose identifying the plurality of other cells based upon the cell specific scrambling code; ranking the plurality of other cells based upon the received power originating from the plurality of other cells.

In the same field of endeavor, Sambhwani et al. disclose identifying the plurality of other cells based upon the cell specific scrambling code ([0026]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile station of Okajima et al. by specifically identifying the plurality of other cells based upon the cell specific scrambling code, as taught by Sambhwani et al., the motivation being in order to detect or identify the base station or cell.

In the same field of endeavor, Bayley et al. disclose ranking the plurality of other cells based upon the received power originating from the plurality of other cells (col. 16, lines 25-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile station of Okajima et al. by specifically including ranking the plurality of other cells based upon the received power originating from the plurality of other cells, as taught by Bayley et al., the motivation being in order to determine when a hand-off should occur.

Regarding claim 4, the combination of Okajima et al., Sambhwani et al. and Bayley et al. disclose all the limitations in claim 2. Further, Okajima et al. disclose the method wherein the selected communication signals number a fixed value of N (fig. 3, [0062] to [0068]).

Regarding claim 10, the combination of Okajima et al., Sambhwani et al. and Bayley et al. disclose all the limitations in claim 1. Further, Okajima et al. disclose the method wherein at least one communication signal from another cell includes a communication signal transmitted from one wireless transmit/receive unit 42 and 43 for reception by another wireless transmit/receive unit 45 and 46 (fig. 3 and fig. 8, [0060], [0062] to [0068])

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 24, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 25, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 30, this claim is rejected for the same reason as set forth in claim 10.

Regarding claim 40, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 43, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 44, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 51, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 55, this claim is rejected for the same reason as set forth in claim 51.

Regarding claim 59, this claim is rejected for the same reason as set forth in claim 57.

Regarding claim 61, this claim is rejected for the same reason as set forth in claim 54.

4. Claims 26, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (Pub. No: 20010018346) in view of Sambhwani et al. (Pub. No: 20070217486) and further in view of Bayley et al. (U.S. 6944143) and further in view of Hasegawa (U.S. 5862476).

Regarding claim 26, the combination of Okajima et al., Sambhwani et al. and Bayley et al. disclose all the limitations in claim 21. However, the combination of Okajima et al., Sambhwani et al. and Bayley et al. do not disclose the wireless transmit /receive unit wherein the communication selection device is configured to select communication signals based on a received power of each communication signal over a specified time period.

In the same field of endeavor, Hasegawa discloses the wireless transmit /receive unit wherein the communication selection device is configured to select communication signals based

on a received power of each communication signal over a specified time period (col. 15, lines 1-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile station of the combination of Okajima et al., Sambhwani et al. and Bayley et al. by specifically including the wireless transmit /receive unit wherein the communication selection device is configured to select communication signals based on a received power of each communication signal over a specified time period, as taught by Hasegawa, the motivation being in order to provide a good quality communication service.

Regarding claim 45, this claim is rejected for the same reason as set forth in claim 26.

5. Claims 7-9, 27-29, 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (Pub. No: 20010018346) in view of Sambhwani et al. (Pub. No: 20070217486) and further in view of Bayley et al. (U.S. 6944143) and further in view of Hudson (Pub. No: 20020176485).

Regarding claim 7, the combination of Okajima et al., Sambhwani et al. and Bayley et al. disclose all the limitations in claim 1. Further, Okajima et al. disclose the method wherein the wireless communication system is a time divided code division multiple access communication system ([0006]). However, the combination of Okajima et al., Sambhwani et al. and Bayley et al. do not disclose the producing channel estimates is by implementing a Steiner algorithm for a plurality of cells.

In the same field of endeavor, Hudson discloses the producing channel estimates is by implementing a Steiner algorithm for a plurality of cells ([0006]-[0008] and [0040]-[0041] and 0051])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile station of the combination of Okajima et al., Sambhwani et al. and Bayley et al. by specifically including the producing channel estimates is by implementing a Steiner algorithm for a plurality of cells, as taught by Hudson, the motivation being in order to allow adequate interference cancellation of intercell interference.

Regarding claim 8, the combination of Okajima et al. and Hudson disclose all the limitations in claim 7. Further, Okajima et al. disclose the method wherein the time divided code division multiple access communication system is a time division duplex wideband code division multiple access communication system (fig. 1, [0006] to [0008]).

Regarding claim 9, the combination of Okajima et al. and Hudson disclose all the limitations in claim 7. Further, Okajima et al. disclose the method wherein the time divided code division multiple access communication system is a time division synchronous code division multiple access communication system (fig. 1, [0006] to [0008]).

Regarding claim 27, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 28, this claim is rejected for the same reason as set forth in claim 8.

Regarding claim 29, this claim is rejected for the same reason as set forth in claim 9.

Regarding claim 46, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 47, this claim is rejected for the same reason as set forth in claim 8.

Regarding claim 48, this claim is rejected for the same reason as set forth in claim 9.

Response to Argument

6. Applicant, on page 18 of the remark, argues that there is no disclosure, teaching, or suggestion in the Okijama reference of selecting communication signals of the plurality of

communication signals based on a received power of each communication signal, the selected communication signals having a received power exceeding a threshold, including at least one desired communication signal. Nor is there any disclosure, teaching, or suggestion of identifying a plurality of other cells based upon a cell specific scrambling code or ranking a plurality of other cells based upon a received power originating from the plurality of other cells. However, the Examiner respectfully disagrees.

First, Okajima et al. disclose in paragraph 60 to paragraph 70 that *the control unit 47 selects a record including a received-signal strength that is higher than the received-signal-strength threshold, for example, a received-signal strength 25, from the adjacent-base-station received-signal-strength management table, and sets an adjacent base station that use a radio channel specified by radio-channel information of an adjacent base station included in the selected record, to a child base station of the mobile station 30*. For instance, the control unit 47 selects the radio channels CH2, CH5 and CH7 from the adjacent-base-station received-signal-strength management table shown in FIG. 20, and sets the base stations 15, 20 and 24 that respectively use the radio channels CH2, CH5 and CH7 to child base stations of the mobile station 30. As a result, the parent base station 19 having the IP address 9 and a plurality of the child base stations 15, 20 and 24 respectively having IP addresses 5, 10 and 14 are determined as base stations composing the virtual base station group. Moreover, Okajima et al. disclose in paragraph 88 that a mobile station measures a ***received-signal strength of each radio channel while moving, and selects a base station corresponding to a radio channel whose received-signal strength is higher than the received-signal-strength threshold as a part of a virtual base station group for the mobile station***, as shown in FIG. 16. Every time the mobile station selects

such a base station as a part of the virtual base station group, the mobile station transmits the request signal for organizing the virtual base station group to a parent base station having the highest received-signal strength among base stations included in the virtual base station group, thereby organizing the virtual base station group, as shown in FIG. 21. Consequently, the received-signal strength of each radio channel changes along with movement of the mobile station, and thus base stations composing the virtual base station group change according to changing received-signal strengths of radio channels.

Second, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant, on page 18 of the remark, argues that there is no disclosure, teaching, or suggestion in the Sambhwani reference of identifying a plurality of other cells based upon the received power originated from a plurality of other cells. Nor is there any disclosure, teaching, or suggestion of identifying the plurality of other cells based upon cell specific scrambling code. However, the Examiner respectfully disagrees.

First, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., identifying a plurality of other cells based upon the received power originated from a plurality of other cells) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Second, Sambhwani discloses in paragraph 26 that a cell search procedure when a mobile terminal is initially powered on to identify the base station or cell which transmitted the received signals containing a scrambling code. the scrambling code of each cell is transmitted on a periodic basis and the period of the scrambling code of each cell is thirty-eight thousand and four hundred (38,400) chips, i.e., the scrambling code of each cell is repeated after 38,400 chips. For example, for cell "0", X.sub.0 is generated internally within a scrambling code generator at t.sub.0 and at t.sub.38,400.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen M Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-7503.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dai A Phuong/
Examiner, Art Unit 2617
Date: 06/17/2008

/Duc Nguyen/
Supervisory Patent Examiner, Art Unit 2617